

REMARKS

This is in reply to the office action dated June 24, 2005, and the interview summary issued by office action dated September 23, 2005. Independent claims 1, and 13 have been amended; claims 20 and 21 canceled. Other claims have been amended to comport with the amended independent claims. Reexamination and reconsideration are requested in view of this reply.

Interview Summary and 35 USC 102(e) Rejection

This is in reply to the interview summary from the examiner provided in the office action dated 9/23/05. The interview was held on September 20, 2005 between the undersigned and examiner Doerrler.

Claims 1 to 3, 6, 8, 10, 12 to 15, and 19 stand rejected under 35 USC 102(e) is being anticipated by Flohr et al (US 2004/013201). The Examiner stated in the office action of 6/24/005 that the effective filing date of Flohr et al is seen as 3-20-2002 since it is a continuation. In the telephone interview, the examiner agreed to withdraw this rejection. It was pointed out that Flohr is a continuation of PCT/EP02/03057 filed March 20, 2002. Moreover, the PCT application was published as WO 02/084168 in the German language.

As the published international application is not in the English-language, reliance on 35 USC 102(e) is not proper for a least this reason. Accordingly, the examiner stated that he would withdraw this rejection, but that the he would reserve the right to make other rejections using this reference if applicable. In view of the interview with the examiner, and the examiner's representation that he is withdrawing this rejection, no further discussions of this rejection is provided herein.

35 USC 102(b) Rejection

Claims 1 to 3, 6, 8, 10, 12 to 15, and 19 stand rejected under 35 USC 102(b) is being anticipated by Ide et al (US 6,237,348). Applicants believe that the claims as amended are patentable.

The amendments to Claim 1 include "and wherein the predetermined mass of said second material to be added is less than said given mass of liquid material transferred, and said predetermining step comprising calculating said mass of said second material to be added for said given mass of liquid material transferred, said calculating step accounting for the differences between the compositions of the liquid and the vapor phase of said first material". Support for the amendments is found in the specification as filed. For example, on page 17 of the specification, example 3 of the invention adds .0136lb of second composition material for each 1 lb of material transferred, i.e., supporting the claim language "the predetermined mass of said second material to be added is less than said given mass of liquid material transferred". Support to the claim language "said calculating step accounting for the differences between the compositions of the liquid and the vapor phase of said first material" is found on pages 12 to 14 which show the equations used. The variable x_i is the liquid component while y_i is the vapor component of the first material, the equations accounting for the differences between them. Amendment to claim 13 are similarly supported.

The present invention provides a method of dispensing a liquid first material comprising a first composition of multiple components that normally fractionate upon boiling. A portion of the liquid material is transferred from the source container to the receiving container. To maintain the composition of the material in the source container, a second material is provided which is added to the source container. The second material has a second composition different from that of the first composition and comprises at least one of the components, the second composition and the mass of the second material to be added to the source container for a given mass of

liquid material transferred out is predetermined to maintain the composition of the remainder of liquid material in the source container at substantially the same composition as the first composition, and the predetermined mass of the second material to be added is less than the given mass of liquid material transferred. Furthermore, the predetermining step comprises calculating the mass of the second material to be added for said given mass of liquid material transferred, the calculating step accounting for the differences between the compositions of the liquid and the vapor phase of the first material.

Ide discloses a process for transferring liquefied gases between containers. As summarized in Ide in the Abstract and column 2, line 56 to column 3, line 10, Ide discloses 4 methods for transferring liquefied gases. The first method is as follows:

The first container is filled with a supplement liquid or supplement gas in an amount making up for the portion of the capacity of the first container that is equal to the decrease in volume of the liquid phase of the nonazeotropic mixture resulting from transfer filling. The supplement liquid is the liquid phase of the liquefied gas mixture having the same composition as that of the nonazeotropic mixture stored in the first container.

The first method disclosed in Ide clearly does not teach or suggest the present invention of claim 1 which requires that the second material have a composition different from the first composition. As highlighted above, the first method of Ide specifically teaches that the two compositions are the same. Thus claim 1 is patentable over Ide in regard to this first method.

The second and third methods of Ide are related:

The first container is filled with a supplement liquid or supplement gas in an amount making up for the portion of the capacity of the first container that is equal to the decrease in volume of the liquid phase of the nonazeotropic mixture resulting from transfer filling. . . . The supplement gas is a gaseous phase of a liquefied gas mixture having the same composition as that of the nonazeotropic mixture stored in the first container or a gaseous phase composed of at least one component of the nonazeotropic mixture and containing the component

having the lowest boiling point of all of the components of the mixture in a proportion larger than the proportion in the nonazeotropic mixture.

Ide, however, does not teach or suggest the claimed method to determine the amount of gas to add to the source container. Ide would appear to teach adding gas to replace volume. For example, in column 10, lines 27-41, Ide states that:

the supplement gas drawn out from the premixing tank 13 via the gas draw-out piping 20 disposed on the gaseous phase side of the premixing tank 13 is injected into the first container 1 on the gaseous phase side thereof via the supplement gas injection piping 22, at a rate such that the decrease in volume of the liquid phase in the first container 1 is compensated for by said supplement gas under the pressure of the gaseous phase.

Ide then provides:

In this method, as in the method shown in FIG. 2, it is desirable that the first container 1 be provided with a level gauge 19 to monitor the volume of the liquid phase of the nonazeotropic mixture in the first container 1, so that the supplement gas can be injected continuously or intermittently into the first container 1 from the premixing tank 13 in an amount corresponding to the decrease in liquid volume in first container 1.

No other means of determining the amount of gas to add to the source tank is provided. Specifically, the method of the claim 1 which requires calculating the mass of the material to add, and which calculation accounts for the differences between the compositions of the liquid and the vapor phase of said first material is not taught or suggested. The equations for making this predetermination as claimed are provided on pages 13-14 of the present application. Ide does not teach or suggest the invention of claim 1 and thus claim 1 is believed patentable over this method of Ide.

The fourth method of Ide is disclosed as follows at Column 7, lines 25-26:

The first container is filled with a supplement liquid or supplement gas in an amount making up for the portion of the capacity of the first container that is equal to the decrease in volume of the liquid phase of the nonazeotropic mixture resulting from transfer filling. . . . The supplement gas may be a compressed gas.

* * *

The compressed gas (ii) that can be used includes, but is not limited to, nitrogen, helium, argon, and air.

This method of Ide is different from that of claim 1 since it does not provide a second composition which contains at least one of the components that make up the liquid first material. Accordingly, claim 1 is believed patentable over this teaching.

Independent claim 13, is believed patentable for reasons similar to those discussed above for claim 1.

Claims 2 to 12, and 14 to 19, depending from claims 1 and 13 respectively, and containing additional limitations, are likewise believed patentable. Claim 9 was noted as allowable.

Claims 4, 5, 11 and 16-18 stand rejected under 35 USC 103(a) as being unpatentable over Ide et al of Flohr et al. These claims are patentable for the same reasons discussed above. Likewise for claim 7 as Green et al. does not provided the requisite teachings or suggestion as discussed above.

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Conclusion

For the reasons set forth above, the claims are believed patentable.
Allowance is respectfully requested.

Signature of Representative,

October 24, 2005
Date


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